Civil Engineering Database Subject Heading Index

The **Civil Engineering Database (CEDB)** is designed to provide free, easy bibliographic access to all ASCE publications. The database covers ASCE documents published since 1970. It provides access to all the journals, conference proceedings, books, standards, manuals, magazines, and newspapers. The index terms below were assigned to papers published in this journal during 2005 from a CEDB subject heading list. The CEDB and subject heading list can be accessed on the Web at *http://www.pubs.asce.org/cedbsrch.html*.

Aircraft
September 11, 2001, Airliner Crash into the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 189-96 (2005).

Airport runways
Lightning Protection of Airport Runway. — T. V. Gopalan; 19(4), 290-4 (2005).

Asphalt pavements
Detailed Forensic Investigation and Rehabilitation Recommendation on Interstate Highway-30. — Dar-Hao Chen, Tom Scullion, John Bilyeu, and Moon Won; 19(2), 155-64 (2005).

Barriers
Sand Control Measures and Sand Drift Fences. — Abdulmalik A. A. Alghamdi and Nasser S. Al-Kahtani; 19(4), 295-9 (2005).

Blast loads
Effects of Mine Blasting on Residential Structures. — E. F. Gad, J. L. Wilson, A. J. Moore, and A. B. Richards; 19(3), 222-8 (2005).

Bracing
Failure of 220 kV Double Circuit Transmission Line Tower Due to Lightning. — Zinnia Nair, K. M. Aparna, R. S. Khandagale, and T. V. Gopalan; 19(2), 132-7 (2005).

Brick masonry
Evaluation of Seismic Performance of Gravity Load Designed Reinforced Concrete Frames. — Helen M. Santhi, G. M. Samuel Knight, and K. Muthumani; 19(4), 277-82 (2005).

Bricks
Load Testing of Historic Cast Iron Stairs at Cape Hatteras Lighthouse. — Ufuk Dilek, Marc L. Sorenson, and Donald B. Chandler; 19(1), 36-41 (2005).

Bridge design
Determination of Bridge Design Parameters through Field Evaluation of the Route 601 Bridge Utilizing Fiber-Reinforced Polymer Girders. — Edgar Restrepo, Tommy Cousins, and Jack Lesko; 19(1), 17-27 (2005).
Demonstration of Use of High-Performance Lightweight Concrete in Bridge Superstructure in Virginia. — Christopher J. Waldron, Thomas E. Cousins, Adil J. Nassar, and Jose P. Gomez; 19(2), 146-54 (2005).

Bridge inspection
Bridge Management and Nondestructive Evaluation. — Kevin L. Rens, Carnot L. Nogueira, and David J. Transue; 19(1), 3-16 (2005).

Bridge maintenance
Bridge Management and Nondestructive Evaluation. — Kevin L. Rens, Carnot L. Nogueira, and David J. Transue; 19(1), 3-16 (2005).
Durable Repairs on Marine Bridge Piles. — Patricia Thaesler, Lawrence Kahn, Rita Oberle, and Cornelia E. Demers; 19(1), 88-92 (2005).

Bridges, girder
Determination of Bridge Design Parameters through Field Evaluation of the Route 601 Bridge Utilizing Fiber-Reinforced Polymer Girders. — Edgar Restrepo, Tommy Cousins, and Jack Lesko; 19(1), 17-27 (2005).

Buckling
Failure of 220 kV Double Circuit Transmission Line Tower Due to Lightning. — Zinnia Nair, K. M. Aparna, R. S. Khandagale, and T. V. Gopalan; 19(2), 132-7 (2005).

Building codes
Ronan Point Apartment Tower Collapse and its Effect on Building Codes. — Cynthia Pearson and Norbert Delatte; 19(2), 172-7 (2005).

Building design
Assessment of Defects at Construction and Occupancy Stages. — Wai-Kiong Chong and Sui-Pheng Low; 19(4), 283-9 (2005).

Buildings, office
September 11, 2001, Airliner Crash into the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 189-96 (2005).
Description of Structural Damage Caused by the Terrorist Attack on the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 197-205 (2005).
Toughness of the Pentagon Structure. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 206-11 (2005).
Response to Fire Exposure of the Pentagon Structural Elements. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 212-9 (2005).
Conclusions and Recommendations from the Pentagon Crash. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 220-1 (2005).

Buildings, residential
Levelness of Newly Constructed Posttensioned Slabs for Residential Structures. — Iraj Noorany, E. David Colbaugh, Ronald J. Lejman, and Michael J. Miller; 19(1), 49-55 (2005).
Multifamily Affordable Housing: Residential Satisfaction. — Deidre E. Paris and Roozbeh Kangari; 19(2), 138-45 (2005).
Effects of Mine Blasting on Residential Structures. — E. F. Gad, J. L. Wilson, A. J. Moore, and A. B. Richards; 19(3), 222-8 (2005).

California
Levelness of Newly Constructed Posttensioned Slabs for Residential Structures. — Iraj Noorany, E. David Colbaugh, Ronald J. Lejman, and Michael J. Miller; 19(1), 49-55 (2005).
Effect of Toe Excavation on a Deep Bedrock Landslide. — Timothy D. Stark, W. David Arellano, Ryan P. Hillman, Roger M. Hughes, Norman Joyal, and Don Hillebrandt; 19(3), 244-55 (2005).

Case reports
Ronan Point Apartment Tower Collapse and its Effect on Building Codes. — Cynthia Pearson and Norbert Delatte; 19(2), 172-7 (2005).
Effect of Dynamic Compaction on Placement of High-Road Embankment. — Wei-Lie Zou, Zhao Wang, and Zheng-Fa Yao; 19(4), 316-23 (2005).
Marine Outfall Performance. I: Introduction and Flow Restoration. — Robert A. Grace; 19(4), 347-58 (2005).
Marine Outfall Performance. II: Stabilization and Case Studies. — Robert A. Grace; 19(4), 359-69 (2005).

Cast iron
Load Testing of Historic Cast Iron Stairs at Cape Hatteras Lighthouse. — Ufuk Dilek, Marc L. Sorenson, and Donald B. Chandler; 19(1), 36-41 (2005).

China
Effect of Dynamic Compaction on Placement of High-Road Embankment. — Wei-Lie Zou, Zhao Wang, and Zheng-Fa Yao; 19(4), 316-23 (2005).

Chlorides
Field Evaluation of Marine Structures Containing Calcium Nitrite. — Mereoni M. B. Bola and Craig M. Newtson; 19(1), 28-35 (2005).
Corrosion of High Chromium and Conventional Steels Embedded in Concrete. — Vijayakumar Nachiappan and Eung Ha Cho; 19(1), 56-61 (2005).

Chromium
Corrosion of High Chromium and Conventional Steels Embedded in Concrete. — Vijayakumar Nachiappan and Eung Ha Cho; 19(1), 56-61 (2005).

Clays
Effect of Toe Excavation on a Deep Bedrock Landslide. — Timothy D. Stark, W. David Arellano, Ryan P. Hillman, Roger M. Hughes, Norman Joyal, and Don Hillebrandt; 19(3), 244-55 (2005).
Evaluation of a Dike Damaged by Pile Driving in Soft Clay. — Shui-Long Shen, Jie Han, He-Hua Zhu, and Zhen-Shun Hong; 19(4), 300-7 (2005).

Civil Engineering Database Subject Heading Index

The **Civil Engineering Database (CEDB)** is designed to provide free, easy bibliographic access to all ASCE publications. The database covers ASCE documents published since 1970. It provides access to all the journals, conference proceedings, books, standards, manuals, magazines, and newspapers. The index terms below were assigned to papers published in this journal during 2005 from a CEDB subject heading list. The CEDB and subject heading list can be accessed on the Web at *http://www.pubs.asce.org/cedbsrch.html*.

Aircraft
September 11, 2001, Airliner Crash into the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 189-96 (2005).

Airport runways
Lightning Protection of Airport Runway. — T. V. Gopalan; 19(4), 290-4 (2005).

Asphalt pavements
Detailed Forensic Investigation and Rehabilitation Recommendation on Interstate Highway-30. — Dar-Hao Chen, Tom Scullion, John Bilyeu, and Moon Won; 19(2), 155-64 (2005).

Barriers
Sand Control Measures and Sand Drift Fences. — Abdulmalik A. A. Alghamdi and Nasser S. Al-Kahtani; 19(4), 295-9 (2005).

Blast loads
Effects of Mine Blasting on Residential Structures. — E. F. Gad, J. L. Wilson, A. J. Moore, and A. B. Richards; 19(3), 222-8 (2005).

Bracing
Failure of 220 kV Double Circuit Transmission Line Tower Due to Lightning. — Zinnia Nair, K. M. Aparna, R. S. Khandagale, and T. V. Gopalan; 19(2), 132-7 (2005).

Brick masonry
Evaluation of Seismic Performance of Gravity Load Designed Reinforced Concrete Frames. — Helen M. Santhi, G. M. Samuel Knight, and K. Muthumani; 19(4), 277-82 (2005).

Bricks
Load Testing of Historic Cast Iron Stairs at Cape Hatteras Lighthouse. — Ufuk Dilek, Marc L. Sorenson, and Donald B. Chandler; 19(1), 36-41 (2005).

Bridge design
Determination of Bridge Design Parameters through Field Evaluation of the Route 601 Bridge Utilizing Fiber-Reinforced Polymer Girders. — Edgar Restrepo, Tommy Cousins, and Jack Lesko; 19(1), 17-27 (2005).
Demonstration of Use of High-Performance Lightweight Concrete in Bridge Superstructure in Virginia. — Christopher J. Waldron, Thomas E. Cousins, Adil J. Nassar, and Jose P. Gomez; 19(2), 146-54 (2005).

Bridge inspection
Bridge Management and Nondestructive Evaluation. — Kevin L. Rens, Carnot L. Nogueira, and David J. Transue; 19(1), 3-16 (2005).

Bridge maintenance
Bridge Management and Nondestructive Evaluation. — Kevin L. Rens, Carnot L. Nogueira, and David J. Transue; 19(1), 3-16 (2005).
Durable Repairs on Marine Bridge Piles. — Patricia Thaesler, Lawrence Kahn, Rita Oberle, and Cornelia E. Demers; 19(1), 88-92 (2005).

Bridges, girder
Determination of Bridge Design Parameters through Field Evaluation of the Route 601 Bridge Utilizing Fiber-Reinforced Polymer Girders. — Edgar Restrepo, Tommy Cousins, and Jack Lesko; 19(1), 17-27 (2005).

Buckling
Failure of 220 kV Double Circuit Transmission Line Tower Due to Lightning. — Zinnia Nair, K. M. Aparna, R. S. Khandagale, and T. V. Gopalan; 19(2), 132-7 (2005).

Building codes
Ronan Point Apartment Tower Collapse and its Effect on Building Codes. — Cynthia Pearson and Norbert Delatte; 19(2), 172-7 (2005).

Building design
Assessment of Defects at Construction and Occupancy Stages. — Wai-Kiong Chong and Sui-Pheng Low; 19(4), 283-9 (2005).

Buildings, office
September 11, 2001, Airliner Crash into the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 189-96 (2005).
Description of Structural Damage Caused by the Terrorist Attack on the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 197-205 (2005).
Toughness of the Pentagon Structure. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 206-11 (2005).
Response to Fire Exposure of the Pentagon Structural Elements. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 212-9 (2005).
Conclusions and Recommendations from the Pentagon Crash. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 220-1 (2005).

Buildings, residential
Levelness of Newly Constructed Posttensioned Slabs for Residential Structures. — Iraj Noorany, E. David Colbaugh, Ronald J. Lejman, and Michael J. Miller; 19(1), 49-55 (2005).
Multifamily Affordable Housing: Residential Satisfaction. — Deidre E. Paris and Roozbeh Kangari; 19(2), 138-45 (2005).
Effects of Mine Blasting on Residential Structures. — E. F. Gad, J. L. Wilson, A. J. Moore, and A. B. Richards; 19(3), 222-8 (2005).

California
Levelness of Newly Constructed Posttensioned Slabs for Residential Structures. — Iraj Noorany, E. David Colbaugh, Ronald J. Lejman, and Michael J. Miller; 19(1), 49-55 (2005).
Effect of Toe Excavation on a Deep Bedrock Landslide. — Timothy D. Stark, W. David Arellano, Ryan P. Hillman, Roger M. Hughes, Norman Joyal, and Don Hillebrandt; 19(3), 244-55 (2005).

Case reports
Ronan Point Apartment Tower Collapse and its Effect on Building Codes. — Cynthia Pearson and Norbert Delatte; 19(2), 172-7 (2005).
Effect of Dynamic Compaction on Placement of High-Road Embankment. — Wei-Lie Zou, Zhao Wang, and Zheng-Fa Yao; 19(4), 316-23 (2005).
Marine Outfall Performance. I: Introduction and Flow Restoration. — Robert A. Grace; 19(4), 347-58 (2005).
Marine Outfall Performance. II: Stabilization and Case Studies. — Robert A. Grace; 19(4), 359-69 (2005).

Cast iron
Load Testing of Historic Cast Iron Stairs at Cape Hatteras Lighthouse. — Ufuk Dilek, Marc L. Sorenson, and Donald B. Chandler; 19(1), 36-41 (2005).

China
Effect of Dynamic Compaction on Placement of High-Road Embankment. — Wei-Lie Zou, Zhao Wang, and Zheng-Fa Yao; 19(4), 316-23 (2005).

Chlorides
Field Evaluation of Marine Structures Containing Calcium Nitrite. — Mereoni M. B. Bola and Craig M. Newtson; 19(1), 28-35 (2005).
Corrosion of High Chromium and Conventional Steels Embedded in Concrete. — Vijayakumar Nachiappan and Eung Ha Cho; 19(1), 56-61 (2005).

Chromium
Corrosion of High Chromium and Conventional Steels Embedded in Concrete. — Vijayakumar Nachiappan and Eung Ha Cho; 19(1), 56-61 (2005).

Clays
Effect of Toe Excavation on a Deep Bedrock Landslide. — Timothy D. Stark, W. David Arellano, Ryan P. Hillman, Roger M. Hughes, Norman Joyal, and Don Hillebrandt; 19(3), 244-55 (2005).
Evaluation of a Dike Damaged by Pile Driving in Soft Clay. — Shui-Long Shen, Jie Han, He-Hua Zhu, and Zhen-Shun Hong; 19(4), 300-7 (2005).

Colorado
Bridge Management and Nondestructive Evaluation. — Kevin L. Rens, Carnot L. Nogueira, and David J. Transue; 19(1), 3-16 (2005).

Coal mining
Effects of Mine Blasting on Residential Structures. — E. F. Gad, J. L. Wilson, A. J. Moore, and A. B. Richards; 19(3), 222-8 (2005).

Coastal environment
Durable Repairs on Marine Bridge Piles. — Patricia Thaesler, Lawrence Kahn, Rita Oberle, and Cornelia E. Demers; 19(1), 88-92 (2005).

Cold-formed steel
Failure of Cold-Formed Steel Beams during Concrete Placement. — Norbert Delatte; 19(2), 178-81 (2005).
Response of Conventional Steel Stud Wall Systems under Static and Dynamic Pressure. — H. Salim, P. Muller, and R. Dinan; 19(4), 267-76 (2005).

Collapse
Ronan Point Apartment Tower Collapse and its Effect on Building Codes. — Cynthia Pearson and Norbert Delatte; 19(2), 172-7 (2005).
Failure of Cold-Formed Steel Beams during Concrete Placement. — Norbert Delatte; 19(2), 178-81 (2005).

Collisions
September 11, 2001, Airliner Crash into the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 189-96 (2005).
Toughness of the Pentagon Structure. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 206-11 (2005).
Conclusions and Recommendations from the Pentagon Crash. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 220-1 (2005).

Compaction
Effect of Dynamic Compaction on Placement of High-Road Embankment. — Wei-Lie Zou, Zhao Wang, and Zheng-Fa Yao; 19(4), 316-23 (2005).

Composite materials
Repair of Wood Piles Using Prefabricated Fiber-Reinforced Polymer Composite Shells. — Roberto Lopez-Anido, Antonis P. Michael, Thomas C. Sandford, and Barry Goodell; 19(1), 78-87 (2005).

Composite structures
Multiparameter Assessment Guide for Emergency Shelters: Disaster Relief Applications. — N. M. Bradford and R. Sen; 19(2), 108-16 (2005).

Concrete
Field Evaluation of Marine Structures Containing Calcium Nitrite. — Mereoni M. B. Bola and Craig M. Newtson; 19(1), 28-35 (2005).
Corrosion of High Chromium and Conventional Steels Embedded in Concrete. — Vijayakumar Nachiappan and Eung Ha Cho; 19(1), 56-61 (2005).

Concrete deterioration
Durable Repairs on Marine Bridge Piles. — Patricia Thaesler, Lawrence Kahn, Rita Oberle, and Cornelia E. Demers; 19(1), 88-92 (2005).

Concrete pavements
Detailed Forensic Investigation and Rehabilitation Recommendation on Interstate Highway-30. — Dar-Hao Chen, Tom Scullion, John Bilyeu, and Moon Won; 19(2), 155-64 (2005).

Concrete piles
Durable Repairs on Marine Bridge Piles. — Patricia Thaesler, Lawrence Kahn, Rita Oberle, and Cornelia E. Demers; 19(1), 88-92 (2005).

Concrete slabs
Levelness of Newly Constructed Posttensioned Slabs for Residential Structures. — Iraj Noorany, E. David Colbaugh, Ronald J. Lejman, and Michael J. Miller; 19(1), 49-55 (2005).

Concrete structures
Evaluation of Fire Damage to a Precast Concrete Structure Nondestructive, Laboratory, and Load Testing. — Ufuk Dilek; 19(1), 42-8 (2005).
Selection and Use of Polymer-Based Materials in the Repair of Concrete Structures. — John Kosednar and Noel P. Mailvaganam; 19(3), 229-33 (2005).

Concrete, post tensioned
Levelness of Newly Constructed Posttensioned Slabs for Residential Structures. — Iraj Noorany, E. David Colbaugh, Ronald J. Lejman, and Michael J. Miller; 19(1), 49-55 (2005).

Concrete, reinforced
Evaluation of Seismic Performance of Gravity Load Designed Reinforced Concrete Frames. — Helen M. Santhi, G. M. Samuel Knight, and K. Muthumani; 19(4), 277-82 (2005).
Longitudinal Cracking Distress on Continuously Reinforced Concrete Pavements in Illinois. — Jeffery R. Roesler, John S. Popovics, Joni L. Ranchero, Matt Mueller, and David Lippert; 19(4), 331-8 (2005).

Connections
Response of Conventional Steel Stud Wall Systems under Static and Dynamic Pressure. — H. Salim, P. Muller, and R. Dinan; 19(4), 267-76 (2005).

Construction
Multiparameter Assessment Guide for Emergency Shelters: Disaster Relief Applications. — N. M. Bradford and R. Sen; 19(2), 108-16 (2005).

Construction inspection
Assessment of Defects at Construction and Occupancy Stages. — Wai-Kiong Chong and Sui-Pheng Low; 19(4), 283-9 (2005).

Construction management
Membrane and Flashing Defects in Low-Slope Roofing: Causes and Effects on Performance. — David M. Bailey and Dane Bradford; 19(3), 234-43 (2005).

Construction materials
Assessment of Defects at Construction and Occupancy Stages. — Wai-Kiong Chong and Sui-Pheng Low; 19(4), 283-9 (2005).

Construction site accidents
Failure of Cold-Formed Steel Beams during Concrete Placement. — Norbert Delatte; 19(2), 178-81 (2005).

Corrosion
Field Evaluation of Marine Structures Containing Calcium Nitrite. — Mereoni M. B. Bola and Craig M. Newtson; 19(1), 28-35 (2005).
Corrosion of High Chromium and Conventional Steels Embedded in Concrete. — Vijayakumar Nachiappan and Eung Ha Cho; 19(1), 56-61 (2005).

Costs
Multifamily Affordable Housing: Residential Satisfaction. — Deidre E. Paris and Roozbeh Kangari; 19(2), 138-45 (2005).

Cracking
Detailed Forensic Investigation and Rehabilitation Recommendation on Interstate Highway-30. — Dar-Hao Chen, Tom Scullion, John Bilyeu, and Moon Won; 19(2), 155-64 (2005).
Longitudinal Cracking Distress on Continuously Reinforced Concrete Pavements in Illinois. — Jeffery R. Roesler, John S. Popovics, Joni L. Ranchero, Matt Mueller, and David Lippert; 19(4), 331-8 (2005).

Dam failure
Lessons Learned: Failure of a Hydroelectric Power Project Dam. — Nasim Uddin; 19(1), 69-77 (2005).

Damage assessment
Evaluation of Fire Damage to a Precast Concrete Structure Nondestructive, Laboratory, and Load Testing. — Ufuk Dilek; 19(1), 42-8 (2005).
Description of Structural Damage Caused by the Terrorist Attack on the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 197-205 (2005).
Response to Fire Exposure of the Pentagon Structural Elements. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 212-9 (2005).
Effects of Mine Blasting on Residential Structures. — E. F. Gad, J. L. Wilson, A. J. Moore, and A. B. Richards; 19(3), 222-8 (2005).

Dams
Lessons Learned: Failure of a Hydroelectric Power Project Dam. — Nasim Uddin; 19(1), 69-77 (2005).

Databases
Bridge Management and Nondestructive Evaluation. — Kevin L. Rens, Carnot L. Nogueira, and David J. Transue; 19(1), 3-16 (2005).

Defects
Membrane and Flashing Defects in Low-Slope Roofing: Causes and Effects on Performance. — David M. Bailey and Dane Bradford; 19(3), 234-43 (2005).
Concept of "Care" in Engineering. — Joshua B. Kardon; 19(3), 256-60 (2005).
Assessment of Defects at Construction and Occupancy Stages. — Wai-Kiong Chong and Sui-Pheng Low; 19(4), 283-9 (2005).
Probability-Based Diagnosis of Defective Geotechnical Engineering Structures. — William S. Kaggwa; 19(4), 308-15 (2005).

Deserts
Sand Control Measures and Sand Drift Fences. — Abdulmalik A. A. Alghamdi and Nasser S. Al-Kahtani; 19(4), 295-9 (2005).

Diagnosis
Probability-Based Diagnosis of Defective Geotechnical Engineering Structures. — William S. Kaggwa; 19(4), 308-15 (2005).

Differential settlement
Forensic Investigation of a Sulfate-Heaved Project in Texas. — Dar-Hao Chen, Pat Harris, Tom Scullion, and John Bilyeu; 19(4), 324-30 (2005).

Dikes
Evaluation of a Dike Damaged by Pile Driving in Soft Clay. — Shui-Long Shen, Jie Han, He-Hua Zhu, and Zhen-Shun Hong; 19(4), 300-7 (2005).
Disaster relief
Multiparameter Assessment Guide for Emergency Shelters: Disaster Relief Applications. — N. M. Bradford and R. Sen; 19(2), 108-16 (2005).
Disturbances
Evaluation of a Dike Damaged by Pile Driving in Soft Clay. — Shui-Long Shen, Jie Han, He-Hua Zhu, and Zhen-Shun Hong; 19(4), 300-7 (2005).
Drift
Sand Control Measures and Sand Drift Fences. — Abdulmalik A. A. Alghamdi and Nasser S. Al-Kahtani; 19(4), 295-9 (2005).
Dunes
Sand Control Measures and Sand Drift Fences. — Abdulmalik A. A. Alghamdi and Nasser S. Al-Kahtani; 19(4), 295-9 (2005).
Dynamic pressure
Response of Conventional Steel Stud Wall Systems under Static and Dynamic Pressure. — H. Salim, P. Muller, and R. Dinan; 19(4), 267-76 (2005).
Earth reinforcement
Failure Analysis of Modular-Block Reinforced-Soil Walls during Earthquakes. — Hoe I. Ling and Dov Leshchinsky; 19(2), 117-23 (2005).
Earthquakes
Failure Analysis of Modular-Block Reinforced-Soil Walls during Earthquakes. — Hoe I. Ling and Dov Leshchinsky; 19(2), 117-23 (2005).
Embankments
Lightning Protection of Airport Runway. — T. V. Gopalan; 19(4), 290-4 (2005).
Effect of Dynamic Compaction on Placement of High-Road Embankment. — Wei-Lie Zou, Zhao Wang, and Zheng-Fa Yao; 19(4), 316-23 (2005).
Emergency services
Multiparameter Assessment Guide for Emergency Shelters: Disaster Relief Applications. — N. M. Bradford and R. Sen; 19(2), 108-16 (2005).
Excavation
Effect of Toe Excavation on a Deep Bedrock Landslide. — Timothy D. Stark, W. David Arellano, Ryan P. Hillman, Roger M. Hughes, Norman Joyal, and Don Hillebrandt; 19(3), 244-55 (2005).
Explosions
Response of Conventional Steel Stud Wall Systems under Static and Dynamic Pressure. — H. Salim, P. Muller, and R. Dinan; 19(4), 267-76 (2005).
Facilities
Concept of "Care" in Engineering. — Joshua B. Kardon; 19(3), 256-60 (2005).
Failure investigations
Failure Analysis of Modular-Block Reinforced-Soil Walls during Earthquakes. — Hoe I. Ling and Dov Leshchinsky; 19(2), 117-23 (2005).
Lessons Learned: Failure of a Hydroelectric Power Project Dam. — Nasim Uddin; 19(1), 69-77 (2005).
Probability-Based Diagnosis of Defective Geotechnical Engineering Structures. — William S. Kaggwa; 19(4), 308-15 (2005).
Failures
Reconnaissance of the July 10, 2000, Payatas Landfill Failure. — Scott M. Merry, Edward Kavazanjian, Jr., and Wolfgang U. Fritz; 19(2), 100-7 (2005).
Failure of 220 kV Double Circuit Transmission Line Tower Due to Lightning. — Zinnia Nair, K. M. Aparna, R. S. Khandagale, and T. V. Gopalan; 19(2), 132-7 (2005).
Forensic Investigation of Ultra-Thin Whitetopping Failures in Taiwan. — Deng-Fong Lin and Her-Yuan Wang; 19(2), 165-71 (2005).
Failure of Cold-Formed Steel Beams during Concrete Placement. — Norbert Delatte; 19(2), 178-81 (2005).
Concept of "Care" in Engineering. — Joshua B. Kardon; 19(3), 256-60 (2005).
Evaluation of a Dike Damaged by Pile Driving in Soft Clay. — Shui-Long Shen, Jie Han, He-Hua Zhu, and Zhen-Shun Hong; 19(4), 300-7 (2005).
Fences
Sand Control Measures and Sand Drift Fences. — Abdulmalik A. A. Alghamdi and Nasser S. Al-Kahtani; 19(4), 295-9 (2005).
Fiber reinforced polymers
Repair of Wood Piles Using Prefabricated Fiber-Reinforced Polymer Composite Shells. — Roberto Lopez-Anido, Antonis P. Michael, Thomas C. Sandford, and Barry Goodell; 19(1), 78-87 (2005).
Fiber-reinforced polymers
Determination of Bridge Design Parameters through Field Evaluation of the Route 601 Bridge Utilizing Fiber-Reinforced Polymer Girders. — Edgar Restrepo, Tommy Cousins, and Jack Lesko; 19(1), 17-27 (2005).
Field investigations
Field Evaluation of Marine Structures Containing Calcium Nitrite. — Mereoni M. B. Bola and Craig M. Newtson; 19(1), 28-35 (2005).
Fires
Evaluation of Fire Damage to a Precast Concrete Structure Nondestructive, Laboratory, and Load Testing. — Ufuk Dilek; 19(1), 42-8 (2005).
September 11, 2001, Airliner Crash into the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 189-96 (2005).
Flexural strength
Demonstration of Use of High-Performance Lightweight Concrete in Bridge Superstructure in Virginia. — Christopher J. Waldron, Thomas E. Cousins, Adil J. Nassar, and Jose P. Gomez; 19(2), 146-54 (2005).
Forensic engineering
Detailed Forensic Investigation and Rehabilitation Recommendation on Interstate Highway-30. — Dar-Hao Chen, Tom Scullion, John Bilyeu, and Moon Won; 19(2), 155-64 (2005).
Forensic Investigation of Ultra-Thin Whitetopping Failures in Taiwan. — Deng-Fong Lin and Her-Yuan Wang; 19(2), 165-71 (2005).
Ronan Point Apartment Tower Collapse and its Effect on Building Codes. — Cynthia Pearson and Norbert Delatte; 19(2), 172-7 (2005).
Forensic Investigation of a Sulfate-Heaved Project in Texas. — Dar-Hao Chen, Pat Harris, Tom Scullion, and John Bilyeu; 19(4), 324-30 (2005).
Gas pipelines
Risk-Based Maintenance Planning of Cross-Country Pipelines. — Mohammed Al-Khalil, Sadi Assaf, and Fahad Al-Anazi; 19(2), 124-31 (2005).
Geosynthetics
Failure Analysis of Modular-Block Reinforced-Soil Walls during Earthquakes. — Hoe I. Ling and Dov Leshchinsky; 19(2), 117-23 (2005).
Geotechnical engineering
Probability-Based Diagnosis of Defective Geotechnical Engineering Structures. — William S. Kaggwa; 19(4), 308-15 (2005).
Gypsum
Forensic Investigation of a Sulfate-Heaved Project in Texas. — Dar-Hao Chen, Pat Harris, Tom Scullion, and John Bilyeu; 19(4), 324-30 (2005).
High strength concretes
Demonstration of Use of High-Performance Lightweight Concrete in Bridge Superstructure in Virginia. — Christopher J. Waldron, Thomas E. Cousins, Adil J. Nassar, and Jose P. Gomez; 19(2), 146-54 (2005).
Highway maintenance
Detailed Forensic Investigation and Rehabilitation Recommendation on Interstate Highway-30. — Dar-Hao Chen, Tom Scullion, John Bilyeu, and Moon Won; 19(2), 155-64 (2005).
Highways
Effect of Dynamic Compaction on Placement of High-Road Embankment. — Wei-Lie Zou, Zhao Wang, and Zheng-Fa Yao; 19(4), 316-23 (2005).
Historic sites
Load Testing of Historic Cast Iron Stairs at Cape Hatteras Lighthouse. — Ufuk Dilek, Marc L. Sorenson, and Donald B. Chandler; 19(1), 36-41 (2005).
Housing
Multifamily Affordable Housing: Residential Satisfaction. — Deidre E. Paris and Roozbeh Kangari; 19(2), 138-45 (2005).
Hydraulic models
Technical Performance Assessment of Urban Sewer Systems. — Maria Adriana Cardoso, Sérgio T. Coelho, Paulo Praça, Rita S. Brito, and José Matos; 19(4), 339-46 (2005).
Hydroelectric powerplants
Lessons Learned: Failure of a Hydroelectric Power Project Dam. — Nasim Uddin; 19(1), 69-77 (2005).
Illinois
Longitudinal Cracking Distress on Continuously Reinforced Concrete Pavements in Illinois. — Jeffery R. Roesler, John S. Popovics, Joni L. Ranchero, Matt Mueller, and David Lippert; 19(4), 331-8 (2005).
In situ tests
Load Testing of Historic Cast Iron Stairs at Cape Hatteras Lighthouse. — Ufuk Dilek, Marc L. Sorenson, and Donald B. Chandler; 19(1), 36-41 (2005).
India
Lightning Protection of Airport Runway. — T. V. Gopalan; 19(4), 290-4 (2005).
Landfills
Reconnaissance of the July 10, 2000, Payatas Landfill Failure. — Scott M. Merry, Edward Kavazanjian, Jr., and Wolfgang U. Fritz; 19(2), 100-7 (2005).

Landslides
Reconnaissance of the July 10, 2000, Payatas Landfill Failure. — Scott M. Merry, Edward Kavazanjian, Jr., and Wolfgang U. Fritz; 19(2), 100-7 (2005).
Effect of Toe Excavation on a Deep Bedrock Landslide. — Timothy D. Stark, W. David Arellano, Ryan P. Hillman, Roger M. Hughes, Norman Joyal, and Don Hillebrandt; 19(3), 244-55 (2005).

Leveling
Levelness of Newly Constructed Posttensioned Slabs for Residential Structures. — Iraj Noorany, E. David Colbaugh, Ronald J. Lejman, and Michael J. Miller; 19(1), 49-55 (2005).

Liability
Concept of "Care" in Engineering. — Joshua B. Kardon; 19(3), 256-60 (2005).

Lightning
Lightning Protection of Airport Runway. — T. V. Gopalan; 19(4), 290-4 (2005).

Lightweight concrete
Demonstration of Use of High-Performance Lightweight Concrete in Bridge Superstructure in Virginia. — Christopher J. Waldron, Thomas E. Cousins, Adil J. Nassar, and Jose P. Gomez; 19(2), 146-54 (2005).

Lime
Forensic Investigation of a Sulfate-Heaved Project in Texas. — Dar-Hao Chen, Pat Harris, Tom Scullion, and John Bilyeu; 19(4), 324-30 (2005).

Load distribution
Demonstration of Use of High-Performance Lightweight Concrete in Bridge Superstructure in Virginia. — Christopher J. Waldron, Thomas E. Cousins, Adil J. Nassar, and Jose P. Gomez; 19(2), 146-54 (2005).

Load tests
Load Testing of Historic Cast Iron Stairs at Cape Hatteras Lighthouse. — Ufuk Dilek, Marc L. Sorenson, and Donald B. Chandler; 19(1), 36-41 (2005).
Evaluation of Fire Damage to a Precast Concrete Structure Nondestructive, Laboratory, and Load Testing. — Ufuk Dilek; 19(1), 42-8 (2005).

Maintenance
Risk-Based Maintenance Planning of Cross-Country Pipelines. — Mohammed Al-Khalil, Sadi Assaf, and Fahad Al-Anazi; 19(2), 124-31 (2005).
Assessment of Defects at Construction and Occupancy Stages. — Wai-Kiong Chong and Sui-Pheng Low; 19(4), 283-9 (2005).
Technical Performance Assessment of Urban Sewer Systems. — Maria Adriana Cardoso, Sérgio T. Coelho, Paulo Praça, Rita S. Brito, and José Matos; 19(4), 339-46 (2005).
Marine Outfall Performance. I: Introduction and Flow Restoration. — Robert A. Grace; 19(4), 347-58 (2005).
Marine Outfall Performance. II: Stabilization and Case Studies. — Robert A. Grace; 19(4), 359-69 (2005).

Models
Gray System Model for Estimating the Pavement International Roughness Index. — Yi Jiang and Shuo Li; 19(1), 62-8 (2005).

Municipal wastes
Reconnaissance of the July 10, 2000, Payatas Landfill Failure. — Scott M. Merry, Edward Kavazanjian, Jr., and Wolfgang U. Fritz; 19(2), 100-7 (2005).

Nitrites
Field Evaluation of Marine Structures Containing Calcium Nitrite. — Mereoni M. B. Bola and Craig M. Newtson; 19(1), 28-35 (2005).

Nondestructive tests
Bridge Management and Nondestructive Evaluation. — Kevin L. Rens, Carnot L. Nogueira, and David J. Transue; 19(1), 3-16 (2005).
Evaluation of Fire Damage to a Precast Concrete Structure Nondestructive, Laboratory, and Load Testing. — Ufuk Dilek; 19(1), 42-8 (2005).

North Carolina
Load Testing of Historic Cast Iron Stairs at Cape Hatteras Lighthouse. — Ufuk Dilek, Marc L. Sorenson, and Donald B. Chandler; 19(1), 36-41 (2005).

Offshore structures
Field Evaluation of Marine Structures Containing Calcium Nitrite. — Mereoni M. B. Bola and Craig M. Newtson; 19(1), 28-35 (2005).

Oil pipelines
Risk-Based Maintenance Planning of Cross-Country Pipelines. — Mohammed Al-Khalil, Sadi Assaf, and Fahad Al-Anazi; 19(2), 124-31 (2005).

Outfall sewers
Marine Outfall Performance. I: Introduction and Flow Restoration. — Robert A. Grace; 19(4), 347-58 (2005).
Marine Outfall Performance. II: Stabilization and Case Studies. — Robert A. Grace; 19(4), 359-69 (2005).

Pavements
Gray System Model for Estimating the Pavement International Roughness Index. — Yi Jiang and Shuo Li; 19(1), 62-8 (2005).
Forensic Investigation of Ultra-Thin Whitetopping Failures in Taiwan. — Deng-Fong Lin and Her-Yuan Wang; 19(2), 165-71 (2005).
Longitudinal Cracking Distress on Continuously Reinforced Concrete Pavements in Illinois. — Jeffery R. Roesler, John S. Popovics, Joni L. Ranchero, Matt Mueller, and David Lippert; 19(4), 331-8 (2005).

Performance characteristics
Membrane and Flashing Defects in Low-Slope Roofing: Causes and Effects on Performance. — David M. Bailey and Dane Bradford; 19(3), 234-43 (2005).
Concept of "Care" in Engineering. — Joshua B. Kardon; 19(3), 256-60 (2005).
Technical Performance Assessment of Urban Sewer Systems. — Maria Adriana Cardoso, Sérgio T. Coelho, Paulo Praça, Rita S. Brito, and José Matos; 19(4), 339-46 (2005).

permeability
Evaluation of Fire Damage to a Precast Concrete Structure Nondestructive, Laboratory, and Load Testing. — Ufuk Dilek; 19(1), 42-8 (2005).

Philippine Islands
Reconnaissance of the July 10, 2000, Payatas Landfill Failure. — Scott M. Merry, Edward Kavazanjian, Jr., and Wolfgang U. Fritz; 19(2), 100-7 (2005).

Pile driving
Evaluation of a Dike Damaged by Pile Driving in Soft Clay. — Shui-Long Shen, Jie Han, He-Hua Zhu, and Zhen-Shun Hong; 19(4), 300-7 (2005).

Pipeline management
Risk-Based Maintenance Planning of Cross-Country Pipelines. — Mohammed Al-Khalil, Sadi Assaf, and Fahad Al-Anazi; 19(2), 124-31 (2005).

Polymers
Selection and Use of Polymer-Based Materials in the Repair of Concrete Structures. — John Kosednar and Noel P. Mailvaganam; 19(3), 229-33 (2005).

Prestressed concrete
Demonstration of Use of High-Performance Lightweight Concrete in Bridge Superstructure in Virginia. — Christopher J. Waldron, Thomas E. Cousins, Adil J. Nassar, and Jose P. Gomez; 19(2), 146-54 (2005).

Pricing
Multifamily Affordable Housing: Residential Satisfaction. — Deidre E. Paris and Roozbeh Kangari; 19(2), 138-45 (2005).

Probability
Probability-Based Diagnosis of Defective Geotechnical Engineering Structures. — William S. Kaggwa; 19(4), 308-15 (2005).

Professional practice
Concept of "Care" in Engineering. — Joshua B. Kardon; 19(3), 256-60 (2005).

Quality control
Lessons Learned: Failure of a Hydroelectric Power Project Dam. — Nasim Uddin; 19(1), 69-77 (2005).
Assessment of Defects at Construction and Occupancy Stages. — Wai-Kiong Chong and Sui-Pheng Low; 19(4), 283-9 (2005).

Rehabilitation
Durable Repairs on Marine Bridge Piles. — Patricia Thaesler, Lawrence Kahn, Rita Oberle, and Cornelia E. Demers; 19(1), 88-92 (2005).
Detailed Forensic Investigation and Rehabilitation Recommendation on Interstate Highway-30. — Dar-Hao Chen, Tom Scullion, John Bilyeu, and Moon Won; 19(2), 155-64 (2005).
Selection and Use of Polymer-Based Materials in the Repair of Concrete Structures. — John Kosednar and Noel P. Mailvaganam; 19(3), 229-33 (2005).
Technical Performance Assessment of Urban Sewer Systems. — Maria Adriana Cardoso, Sérgio T. Coelho, Paulo Praça, Rita S. Brito, and José Matos; 19(4), 339-46 (2005).
Marine Outfall Performance. I: Introduction and Flow Restoration. — Robert A. Grace; 19(4), 347-58 (2005).
Marine Outfall Performance. II: Stabilization and Case Studies. — Robert A. Grace; 19(4), 359-69 (2005).

Remedial action
Conclusions and Recommendations from the Pentagon Crash. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 220-1 (2005).

Retaining walls
Failure Analysis of Modular-Block Reinforced-Soil Walls during Earthquakes. — Hoe I. Ling and Dov Leshchinsky; 19(2), 117-23 (2005).

Risk management
Risk-Based Maintenance Planning of Cross-Country Pipelines. — Mohammed Al-Khalil, Sadi Assaf, and Fahad Al-Anazi; 19(2), 124-31 (2005).
Roofs
Membrane and Flashing Defects in Low-Slope Roofing: Causes and Effects on Performance. — David M. Bailey and Dane Bradford; 19(3), 234-43 (2005).
Roughness
Gray System Model for Estimating the Pavement International Roughness Index. — Yi Jiang and Shuo Li; 19(1), 62-8 (2005).
Roughness coefficient
Gray System Model for Estimating the Pavement International Roughness Index. — Yi Jiang and Shuo Li; 19(1), 62-8 (2005).
Sand
Sand Control Measures and Sand Drift Fences. — Abdulmalik A. A. Alghamdi and Nasser S. Al-Kahtani; 19(4), 295-9 (2005).
Saudi Arabia
Sand Control Measures and Sand Drift Fences. — Abdulmalik A. A. Alghamdi and Nasser S. Al-Kahtani; 19(4), 295-9 (2005).
Seismic effects
Evaluation of Seismic Performance of Gravity Load Designed Reinforced Concrete Frames. — Helen M. Santhi, G. M. Samuel Knight, and K. Muthumani; 19(4), 277-82 (2005).
Serviceability
Gray System Model for Estimating the Pavement International Roughness Index. — Yi Jiang and Shuo Li; 19(1), 62-8 (2005).
Membrane and Flashing Defects in Low-Slope Roofing: Causes and Effects on Performance. — David M. Bailey and Dane Bradford; 19(3), 234-43 (2005).
Settlement
Longitudinal Cracking Distress on Continuously Reinforced Concrete Pavements in Illinois. — Jeffery R. Roesler, John S. Popovics, Joni L. Ranchero, Matt Mueller, and David Lippert; 19(4), 331-8 (2005).
Sewers
Technical Performance Assessment of Urban Sewer Systems. — Maria Adriana Cardoso, Sérgio T. Coelho, Paulo Praça, Rita S. Brito, and José Matos; 19(4), 339-46 (2005).
Shake table tests
Evaluation of Seismic Performance of Gravity Load Designed Reinforced Concrete Frames. — Helen M. Santhi, G. M. Samuel Knight, and K. Muthumani; 19(4), 277-82 (2005).
Shear strength
Effect of Toe Excavation on a Deep Bedrock Landslide. — Timothy D. Stark, W. David Arellano, Ryan P. Hillman, Roger M. Hughes, Norman Joyal, and Don Hillebrandt; 19(3), 244-55 (2005).
Evaluation of a Dike Damaged by Pile Driving in Soft Clay. — Shui-Long Shen, Jie Han, He-Hua Zhu, and Zhen-Shun Hong; 19(4), 300-7 (2005).
Shells
Repair of Wood Piles Using Prefabricated Fiber-Reinforced Polymer Composite Shells. — Roberto Lopez-Anido, Antonis P. Michael, Thomas C. Sandford, and Barry Goodell; 19(1), 78-87 (2005).
Slope stability
Effect of Toe Excavation on a Deep Bedrock Landslide. — Timothy D. Stark, W. David Arellano, Ryan P. Hillman, Roger M. Hughes, Norman Joyal, and Don Hillebrandt; 19(3), 244-55 (2005).
Evaluation of a Dike Damaged by Pile Driving in Soft Clay. — Shui-Long Shen, Jie Han, He-Hua Zhu, and Zhen-Shun Hong; 19(4), 300-7 (2005).
Slopes
Reconnaissance of the July 10, 2000, Payatas Landfill Failure. — Scott M. Merry, Edward Kavazanjian, Jr., and Wolfgang U. Fritz; 19(2), 100-7 (2005).
Soft soils
Evaluation of a Dike Damaged by Pile Driving in Soft Clay. — Shui-Long Shen, Jie Han, He-Hua Zhu, and Zhen-Shun Hong; 19(4), 300-7 (2005).
Space frames
Evaluation of Seismic Performance of Gravity Load Designed Reinforced Concrete Frames. — Helen M. Santhi, G. M. Samuel Knight, and K. Muthumani; 19(4), 277-82 (2005).
Stabilization
Forensic Investigation of a Sulfate-Heaved Project in Texas. — Dar-Hao Chen, Pat Harris, Tom Scullion, and John Bilyeu; 19(4), 324-30 (2005).
Statistical analysis
Levelness of Newly Constructed Posttensioned Slabs for Residential Structures. — Iraj Noorany, E. David Colbaugh, Ronald J. Lejman, and Michael J. Miller; 19(1), 49-55 (2005).
Steel
Corrosion of High Chromium and Conventional Steels Embedded in Concrete. — Vijayakumar Nachiappan and Eung Ha Cho; 19(1), 56-61 (2005).
Steel beams
Failure of Cold-Formed Steel Beams during Concrete Placement. — Norbert Delatte; 19(2), 178-81 (2005).
Steel structures
Response of Conventional Steel Stud Wall Systems under Static and Dynamic Pressure. — H. Salim, P. Muller, and R. Dinan; 19(4), 267-76 (2005).
Stiffness
Evaluation of Seismic Performance of Gravity Load Designed Reinforced Concrete Frames. — Helen M. Santhi, G. M. Samuel Knight, and K. Muthumani; 19(4), 277-82 (2005).
Strength
Evaluation of Seismic Performance of Gravity Load Designed Reinforced Concrete Frames. — Helen M. Santhi, G. M. Samuel Knight, and K. Muthumani; 19(4), 277-82 (2005).
Structural analysis
Description of Structural Damage Caused by the Terrorist Attack on the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 197-205 (2005).
Toughness of the Pentagon Structure. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 206-11 (2005).
Response to Fire Exposure of the Pentagon Structural Elements. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 212-9 (2005).
Structural elements
Response to Fire Exposure of the Pentagon Structural Elements. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 212-9 (2005).
Structural failures
Ronan Point Apartment Tower Collapse and its Effect on Building Codes. — Cynthia Pearson and Norbert Delatte; 19(2), 172-7 (2005).
Probability-Based Diagnosis of Defective Geotechnical Engineering Structures. — William S. Kaggwa; 19(4), 308-15 (2005).
Structural reliability
Toughness of the Pentagon Structure. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 206-11 (2005).
Conclusions and Recommendations from the Pentagon Crash. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 220-1 (2005).
Studs
Response of Conventional Steel Stud Wall Systems under Static and Dynamic Pressure. — H. Salim, P. Muller, and R. Dinan; 19(4), 267-76 (2005).
Subsurface investigations
Effect of Toe Excavation on a Deep Bedrock Landslide. — Timothy D. Stark, W. David Arellano, Ryan P. Hillman, Roger M. Hughes, Norman Joyal, and Don Hillebrandt; 19(3), 244-55 (2005).
Sulfates
Forensic Investigation of a Sulfate-Heaved Project in Texas. — Dar-Hao Chen, Pat Harris, Tom Scullion, and John Bilyeu; 19(4), 324-30 (2005).
Taiwan
Forensic Investigation of Ultra-Thin Whitetopping Failures in Taiwan. — Deng-Fong Lin and Her-Yuan Wang; 19(2), 165-71 (2005).
Terrorism
September 11, 2001, Airliner Crash into the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 189-96 (2005).
Description of Structural Damage Caused by the Terrorist Attack on the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 197-205 (2005).
Toughness of the Pentagon Structure. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 206-11 (2005).
Response to Fire Exposure of the Pentagon Structural Elements. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 212-9 (2005).
Conclusions and Recommendations from the Pentagon Crash. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 220-1 (2005).
Tests
Corrosion of High Chromium and Conventional Steels Embedded in Concrete. — Vijayakumar Nachiappan and Eung Ha Cho; 19(1), 56-61 (2005).

Texas
Detailed Forensic Investigation and Rehabilitation Recommendation on Interstate Highway-30. — Dar-Hao Chen, Tom Scullion, John Bilyeu, and Moon Won; 19(2), 155-64 (2005).
Forensic Investigation of a Sulfate-Heaved Project in Texas. — Dar-Hao Chen, Pat Harris, Tom Scullion, and John Bilyeu; 19(4), 324-30 (2005).
Towers
Failure of 220 kV Double Circuit Transmission Line Tower Due to Lightning. — Zinnia Nair, K. M. Aparna, R. S. Khandagale, and T. V. Gopalan; 19(2), 132-7 (2005).
Transmission lines
Failure of 220 kV Double Circuit Transmission Line Tower Due to Lightning. — Zinnia Nair, K. M. Aparna, R. S. Khandagale, and T. V. Gopalan; 19(2), 132-7 (2005).
Underwater inspection
Marine Outfall Performance. I: Introduction and Flow Restoration. — Robert A. Grace; 19(4), 347-58 (2005).
Marine Outfall Performance. II: Stabilization and Case Studies. — Robert A. Grace; 19(4), 359-69 (2005).
Urban areas
Technical Performance Assessment of Urban Sewer Systems. — Maria Adriana Cardoso, Sérgio T. Coelho, Paulo Praça, Rita S. Brito, and José Matos; 19(4), 339-46 (2005).
Vegetation
Lightning Protection of Airport Runway. — T. V. Gopalan; 19(4), 290-4 (2005).
Vibration
Effects of Mine Blasting on Residential Structures. — E. F. Gad, J. L. Wilson, A. J. Moore, and A. B. Richards; 19(3), 222-8 (2005).
Virginia
Determination of Bridge Design Parameters through Field Evaluation of the Route 601 Bridge Utilizing Fiber-Reinforced Polymer Girders. — Edgar Restrepo, Tommy Cousins, and Jack Lesko; 19(1), 17-27 (2005).
September 11, 2001, Airliner Crash into the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 189-96 (2005).
Description of Structural Damage Caused by the Terrorist Attack on the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 197-205 (2005).
Toughness of the Pentagon Structure. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 206-11 (2005).
Response to Fire Exposure of the Pentagon Structural Elements. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 212-9 (2005).
Conclusions and Recommendations from the Pentagon Crash. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 220-1 (2005).
Walls
Response of Conventional Steel Stud Wall Systems under Static and Dynamic Pressure. — H. Salim, P. Muller, and R. Dinan; 19(4), 267-76 (2005).
Wastewater management
Marine Outfall Performance. I: Introduction and Flow Restoration. — Robert A. Grace; 19(4), 347-58 (2005).
Marine Outfall Performance. II: Stabilization and Case Studies. — Robert A. Grace; 19(4), 359-69 (2005).
Waterfront structures
Repair of Wood Piles Using Prefabricated Fiber-Reinforced Polymer Composite Shells. — Roberto Lopez-Anido, Antonis P. Michael, Thomas C. Sandford, and Barry Goodell; 19(1), 78-87 (2005).
Wooden piles
Repair of Wood Piles Using Prefabricated Fiber-Reinforced Polymer Composite Shells. — Roberto Lopez-Anido, Antonis P. Michael, Thomas C. Sandford, and Barry Goodell; 19(1), 78-87 (2005).
Young's modulus
Evaluation of Fire Damage to a Precast Concrete Structure Nondestructive, Laboratory, and Load Testing. — Ufuk Dilek; 19(1), 42-8 (2005).

Author Index

Al-Anazi, Fahad
Risk-Based Maintenance Planning of Cross-Country Pipelines. — Mohammed Al-Khalil, Sadi Assaf, and Fahad Al-Anazi; 19(2), 124-31 (2005).

Alghamdi, Abdulmalik A. A.
Sand Control Measures and Sand Drift Fences. — Abdulmalik A. A. Alghamdi and Nasser S. Al-Kahtani; 19(4), 295-9 (2005).

Al-Kahtani, Nasser S.
Sand Control Measures and Sand Drift Fences. — Abdulmalik A. A. Alghamdi and Nasser S. Al-Kahtani; 19(4), 295-9 (2005).

Al-Khalil, Mohammed
Risk-Based Maintenance Planning of Cross-Country Pipelines. — Mohammed Al-Khalil, Sadi Assaf, and Fahad Al-Anazi; 19(2), 124-31 (2005).

Aparna, K. M.
Failure of 220 kV Double Circuit Transmission Line Tower Due to Lightning. — Zinnia Nair, K. M. Aparna, R. S. Khandagale, and T. V. Gopalan; 19(2), 132-7 (2005).

Arellano, W. David
Effect of Toe Excavation on a Deep Bedrock Landslide. — Timothy D. Stark, W. David Arellano, Ryan P. Hillman, Roger M. Hughes, Norman Joyal, and Don Hillebrandt; 19(3), 244-55 (2005).

Assaf, Sadi
Risk-Based Maintenance Planning of Cross-Country Pipelines. — Mohammed Al-Khalil, Sadi Assaf, and Fahad Al-Anazi; 19(2), 124-31 (2005).

Bailey, David M.
Membrane and Flashing Defects in Low-Slope Roofing: Causes and Effects on Performance. — David M. Bailey and Dane Bradford; 19(3), 234-43 (2005).

Bedard, Claude
The Use of Chemical Admixtures in Concrete. Part I: Admixture-Cement Compatibility. — Claude Bedard and Noel P. Mailvaganam; 19(4), 263-6 (2005).

Bilyeu, John
Detailed Forensic Investigation and Rehabilitation Recommendation on Interstate Highway-30. — Dar-Hao Chen, Tom Scullion, John Bilyeu, and Moon Won; 19(2), 155-64 (2005).
Forensic Investigation of a Sulfate-Heaved Project in Texas. — Dar-Hao Chen, Pat Harris, Tom Scullion, and John Bilyeu; 19(4), 324-30 (2005).

Bola, Mereoni M. B.
Field Evaluation of Marine Structures Containing Calcium Nitrite. — Mereoni M. B. Bola and Craig M. Newtson; 19(1), 28-35 (2005).

Bradford, Dane
Membrane and Flashing Defects in Low-Slope Roofing: Causes and Effects on Performance. — David M. Bailey and Dane Bradford; 19(3), 234-43 (2005).

Bradford, N. M.
Multiparameter Assessment Guide for Emergency Shelters: Disaster Relief Applications. — N. M. Bradford and R. Sen; 19(2), 108-16 (2005).

Brander, Merle E.
Discussion of "Linking Programming and Design with Facilities Management" by Eren Erdener. — Merle E. Brander; 19(1), 94-5 (2005).

Brito, Rita S.
Technical Performance Assessment of Urban Sewer Systems. — Maria Adriana Cardoso, Sérgio T. Coelho, Paulo Praça, Rita S. Brito, and José Matos; 19(4), 339-46 (2005).

Cardoso, Maria Adriana
Technical Performance Assessment of Urban Sewer Systems. — Maria Adriana Cardoso, Sérgio T. Coelho, Paulo Praça, Rita S. Brito, and José Matos; 19(4), 339-46 (2005).

Carper, Kenneth L., Reviewer
Review of *Engineering Architecture: The Vision of Fazlur R. Khan* by Yasmin Sabina Khan. — Kenneth L. Carper, Reviewer; 19(2), 184-6 (B) (2005).

Carper, Kenneth L.
Editor's Note. — Kenneth L. Carper; 19(1), 1 (2005).
Forensic Investigations Using Nondestructive Techniques. — Michael J. Drerup and Kenneth L. Carper; 19(1), 2 (2005).
Editor's Note. — Kenneth L. Carper; 19(2), 99 (2005).
Editor's Note. — Kenneth L. Carper; 19(3), 187 (2005).
Editor's Note. — Kenneth L. Carper; 19(4), 261-2 (2005).

Chandler, Donald B.
Load Testing of Historic Cast Iron Stairs at Cape Hatteras Lighthouse. — Ufuk Dilek, Marc L. Sorenson, and Donald B. Chandler; 19(1), 36-41 (2005).

Chen, Dar-Hao
Detailed Forensic Investigation and Rehabilitation Recommendation on Interstate Highway-30. — Dar-Hao Chen, Tom Scullion, John Bilyeu, and Moon Won; 19(2), 155-64 (2005).
Forensic Investigation of a Sulfate-Heaved Project in Texas. — Dar-Hao Chen, Pat Harris, Tom Scullion, and John Bilyeu; 19(4), 324-30 (2005).

Cho, Eung Ha
Corrosion of High Chromium and Conventional Steels Embedded in Concrete. — Vijayakumar Nachiappan and Eung Ha Cho; 19(1), 56-61 (2005).

Chong, Wai-Kiong
Assessment of Defects at Construction and Occupancy Stages. — Wai-Kiong Chong and Sui-Pheng Low; 19(4), 283-9 (2005).

Coelho, Sérgio T.
Technical Performance Assessment of Urban Sewer Systems. — Maria Adriana Cardoso, Sérgio T. Coelho, Paulo Praça, Rita S. Brito, and José Matos; 19(4), 339-46 (2005).

Colbaugh, E. David
Levelness of Newly Constructed Posttensioned Slabs for Residential Structures. — Iraj Noorany, E. David Colbaugh, Ronald J. Lejman, and Michael J. Miller; 19(1), 49-55 (2005).

Cousins, Thomas E.
Demonstration of Use of High-Performance Lightweight Concrete in Bridge Superstructure in Virginia. — Christopher J. Waldron, Thomas E. Cousins, Adil J. Nassar, and Jose P. Gomez; 19(2), 146-54 (2005).

Cousins, Tommy
Determination of Bridge Design Parameters through Field Evaluation of the Route 601 Bridge Utilizing Fiber-Reinforced Polymer Girders. — Edgar Restrepo, Tommy Cousins, and Jack Lesko; 19(1), 17-27 (2005).

Delatte, Norbert
Ronan Point Apartment Tower Collapse and its Effect on Building Codes. — Cynthia Pearson and Norbert Delatte; 19(2), 172-7 (2005).
Failure of Cold-Formed Steel Beams during Concrete Placement. — Norbert Delatte; 19(2), 178-81 (T) (2005).

Demers, Cornelia E.
Durable Repairs on Marine Bridge Piles. — Patricia Thaesler, Lawrence Kahn, Rita Oberle, and Cornelia E. Demers; 19(1), 88-92 (2005).

Deschapelles, Bernardo
Discussion of "Effective Length of Lift-Slab Columns" by Rubin M. Zallen and Bernard Grossfield. — Bernardo Deschapelles; 19(1), 93 (2005).

Dilek, Ufuk
Load Testing of Historic Cast Iron Stairs at Cape Hatteras Lighthouse. — Ufuk Dilek, Marc L. Sorenson, and Donald B. Chandler; 19(1), 36-41 (2005).
Evaluation of Fire Damage to a Precast Concrete Structure Nondestructive, Laboratory, and Load Testing. — Ufuk Dilek; 19(1), 42-8 (2005).

Dinan, R.
Response of Conventional Steel Stud Wall Systems under Static and Dynamic Pressure. — H. Salim, P. Muller, and R. Dinan; 19(4), 267-76 (2005).

Drerup, Michael J.
Forensic Investigations Using Nondestructive Techniques. — Michael J. Drerup and Kenneth L. Carper; 19(1), 2 (2005).

Dusenberry, Donald O.
September 11, 2001, Airliner Crash into the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 189-96 (2005).
Description of Structural Damage Caused by the Terrorist Attack on the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 197-205 (2005).
Toughness of the Pentagon Structure. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 206-11 (2005).
Response to Fire Exposure of the Pentagon Structural Elements. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 212-9 (2005).
Conclusions and Recommendations from the Pentagon Crash. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 220-1 (2005).

Erdener, Eren
Closure to "Linking Programming and Design with Facilities Management" by Eren Erdener. — Eren Erdener; 19(1), 95 (2005).

Fritz, Wolfgang U.
Reconnaissance of the July 10, 2000, Payatas Landfill Failure. — Scott M. Merry, Edward Kavazanjian, Jr., and Wolfgang U. Fritz; 19(2), 100-7 (2005).

Gad, E. F.
Effects of Mine Blasting on Residential Structures. — E. F. Gad, J. L. Wilson, A. J. Moore, and A. B. Richards; 19(3), 222-8 (2005).

Girand, Jon
Discussion of "Case History of Damage to a School Building Caused by Differentially Heaving Bedrock" by David C. Noe. — Jon Girand; 19(1), 95-7 (2005).

Gomez, Jose P.
Demonstration of Use of High-Performance Lightweight Concrete in Bridge Superstructure in Virginia. — Christopher J. Waldron, Thomas E. Cousins, Adil J. Nassar, and Jose P. Gomez; 19(2), 146-54 (2005).

Goodell, Barry
Repair of Wood Piles Using Prefabricated Fiber-Reinforced Polymer Composite Shells. — Roberto Lopez-Anido, Antonis P. Michael, Thomas C. Sandford, and Barry Goodell; 19(1), 78-87 (2005).

Gopalan, T. V.
Failure of 220 kV Double Circuit Transmission Line Tower Due to Lightning. — Zinnia Nair, K. M. Aparna, R. S. Khandagale, and T. V. Gopalan; 19(2), 132-7 (2005).
Lightning Protection of Airport Runway. — T. V. Gopalan; 19(4), 290-4 (2005).

Grace, Robert A.
Marine Outfall Performance. I: Introduction and Flow Restoration. — Robert A. Grace; 19(4), 347-58 (2005).
Marine Outfall Performance. II: Stabilization and Case Studies. — Robert A. Grace; 19(4), 359-69 (2005).

Grossfield, Bernard
Closure to "Effective Length of Lift-Slab Columns" by Rubin M. Zallen and Bernard Grossfield. — Rubin M. Zallen and Bernard Grossfield; 19(1), 94 (2005).

Hadipriono, Fabian C.
Closure to "Study of Recent Building Failures in the United States" by Kumalasari Wardhana and Fabian C. Hadipriono. — Fabian C. Hadipriono; 19(2), 182-3 (2005).

Han, Jie
Evaluation of a Dike Damaged by Pile Driving in Soft Clay. — Shui-Long Shen, Jie Han, He-Hua Zhu, and Zhen-Shun Hong; 19(4), 300-7 (2005).

Harris, James R.
September 11, 2001, Airliner Crash into the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 189-96 (2005).
Description of Structural Damage Caused by the Terrorist Attack on the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 197-205 (2005).
Toughness of the Pentagon Structure. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 206-11 (2005).
Response to Fire Exposure of the Pentagon Structural Elements. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 212-9 (2005).
Conclusions and Recommendations from the Pentagon Crash. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 220-1 (2005).

Harris, Pat
Forensic Investigation of a Sulfate-Heaved Project in Texas. — Dar-Hao Chen, Pat Harris, Tom Scullion, and John Bilyeu; 19(4), 324-30 (2005).

Haynes, Gerald
September 11, 2001, Airliner Crash into the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 189-96 (2005).
Description of Structural Damage Caused by the Terrorist Attack on the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 197-205 (2005).
Toughness of the Pentagon Structure. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 206-11 (2005).
Response to Fire Exposure of the Pentagon Structural Elements. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 212-9 (2005).
Conclusions and Recommendations from the Pentagon Crash. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 220-1 (2005).

Hillebrandt, Don
Effect of Toe Excavation on a Deep Bedrock Landslide. — Timothy D. Stark, W. David Arellano, Ryan P. Hillman, Roger M. Hughes, Norman Joyal, and Don Hillebrandt; 19(3), 244-55 (2005).

Hillman, Ryan P.
Effect of Toe Excavation on a Deep Bedrock Landslide. — Timothy D. Stark, W. David Arellano, Ryan P. Hillman, Roger M. Hughes, Norman Joyal, and Don Hillebrandt; 19(3), 244-55 (2005).

Hong, Zhen-Shun
Evaluation of a Dike Damaged by Pile Driving in Soft Clay. — Shui-Long Shen, Jie Han, He-Hua Zhu, and Zhen-Shun Hong; 19(4), 300-7 (2005).

Hughes, Roger M.
Effect of Toe Excavation on a Deep Bedrock Landslide. — Timothy D. Stark, W. David Arellano, Ryan P. Hillman, Roger M. Hughes, Norman Joyal, and Don Hillebrandt; 19(3), 244-55 (2005).

Jiang, Yi
Gray System Model for Estimating the Pavement International Roughness Index. — Yi Jiang and Shuo Li; 19(1), 62-8 (2005).

Joyal, Norman
Effect of Toe Excavation on a Deep Bedrock Landslide. — Timothy D. Stark, W. David Arellano, Ryan P. Hillman, Roger M. Hughes, Norman Joyal, and Don Hillebrandt; 19(3), 244-55 (2005).

Kaggwa, William S.
Probability-Based Diagnosis of Defective Geotechnical Engineering Structures. — William S. Kaggwa; 19(4), 308-15 (2005).

Kahn, Lawrence
Durable Repairs on Marine Bridge Piles. — Patricia Thaesler, Lawrence Kahn, Rita Oberle, and Cornelia E. Demers; 19(1), 88-92 (2005).

Kangari, Roozbeh
Multifamily Affordable Housing: Residential Satisfaction. — Deidre E. Paris and Roozbeh Kangari; 19(2), 138-45 (2005).

Kardon, Joshua B.
Concept of "Care" in Engineering. — Joshua B. Kardon; 19(3), 256-60 (2005).

Kavazanjian, Edward, Jr.
Reconnaissance of the July 10, 2000, Payatas Landfill Failure. — Scott M. Merry, Edward Kavazanjian, Jr., and Wolfgang U. Fritz; 19(2), 100-7 (2005).

Khandagale, R. S.
Failure of 220 kV Double Circuit Transmission Line Tower Due to Lightning. — Zinnia Nair, K. M. Aparna, R. S. Khandagale, and T. V. Gopalan; 19(2), 132-7 (2005).

Kosednar, John
Selection and Use of Polymer-Based Materials in the Repair of Concrete Structures. — John Kosednar and Noel P. Mailvaganam; 19(3), 229-33 (2005).

Lejman, Ronald J.
Levelness of Newly Constructed Posttensioned Slabs for Residential Structures. — Iraj Noorany, E. David Colbaugh, Ronald J. Lejman, and Michael J. Miller; 19(1), 49-55 (2005).

Leshchinsky, Dov
Failure Analysis of Modular-Block Reinforced-Soil Walls during Earthquakes. — Hoe I. Ling and Dov Leshchinsky; 19(2), 117-23 (2005).

Lesko, Jack
Determination of Bridge Design Parameters through Field Evaluation of the Route 601 Bridge Utilizing Fiber-Reinforced Polymer Girders. — Edgar Restrepo, Tommy Cousins, and Jack Lesko; 19(1), 17-27 (2005).

Li, Shuo
Gray System Model for Estimating the Pavement International Roughness Index. — Yi Jiang and Shuo Li; 19(1), 62-8 (2005).

Lin, Deng-Fong
Forensic Investigation of Ultra-Thin Whitetopping Failures in Taiwan. — Deng-Fong Lin and Her-Yuan Wang; 19(2), 165-71 (2005).

Ling, Hoe I.
Failure Analysis of Modular-Block Reinforced-Soil Walls during Earthquakes. — Hoe I. Ling and Dov Leshchinsky; 19(2), 117-23 (2005).

Lippert, David
Longitudinal Cracking Distress on Continuously Reinforced Concrete Pavements in Illinois. — Jeffery R. Roesler, John S. Popovics, Joni L. Ranchero, Matt Mueller, and David Lippert; 19(4), 331-8 (2005).

Lopez-Anido, Roberto
Repair of Wood Piles Using Prefabricated Fiber-Reinforced Polymer Composite Shells. — Roberto Lopez-Anido, Antonis P. Michael, Thomas C. Sandford, and Barry Goodell; 19(1), 78-87 (2005).

Low, Sui-Pheng
Assessment of Defects at Construction and Occupancy Stages. — Wai-Kiong Chong and Sui-Pheng Low; 19(4), 283-9 (2005).

Mailvaganam, Noel P.
Selection and Use of Polymer-Based Materials in the Repair of Concrete Structures. — John Kosednar and Noel P. Mailvaganam; 19(3), 229-33 (2005).
The Use of Chemical Admixtures in Concrete. Part I: Admixture-Cement Compatibility. — Claude Bedard and Noel P. Mailvaganam; 19(4), 263-6 (2005).

Matos, José
Technical Performance Assessment of Urban Sewer Systems. — Maria Adriana Cardoso, Sérgio T. Coelho, Paulo Praça, Rita S. Brito, and José Matos; 19(4), 339-46 (2005).

Merry, Scott M.
Reconnaissance of the July 10, 2000, Payatas Landfill Failure. — Scott M. Merry, Edward Kavazanjian, Jr., and Wolfgang U. Fritz; 19(2), 100-7 (2005).

Michael, Antonis P.
Repair of Wood Piles Using Prefabricated Fiber-Reinforced Polymer Composite Shells. — Roberto Lopez-Anido, Antonis P. Michael, Thomas C. Sandford, and Barry Goodell; 19(1), 78-87 (2005).

Miller, Michael J.
Levelness of Newly Constructed Posttensioned Slabs for Residential Structures. — Iraj Noorany, E. David Colbaugh, Ronald J. Lejman, and Michael J. Miller; 19(1), 49-55 (2005).

Mlakar, Paul F.
The Pentagon Building Performance Study. — Paul F. Mlakar; 19(3), 188 (2005).
September 11, 2001, Airliner Crash into the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 189-96 (2005).
Description of Structural Damage Caused by the Terrorist Attack on the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 197-205 (2005).
Toughness of the Pentagon Structure. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 206-11 (2005).
Response to Fire Exposure of the Pentagon Structural Elements. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 212-9 (2005).
Conclusions and Recommendations from the Pentagon Crash. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 220-1 (2005).

Moore, A. J.
Effects of Mine Blasting on Residential Structures. — E. F. Gad, J. L. Wilson, A. J. Moore, and A. B. Richards; 19(3), 222-8 (2005).

Mueller, Matt
Longitudinal Cracking Distress on Continuously Reinforced Concrete Pavements in Illinois. — Jeffery R. Roesler, John S. Popovics, Joni L. Ranchero, Matt Mueller, and David Lippert; 19(4), 331-8 (2005).

Muller, P.
Response of Conventional Steel Stud Wall Systems under Static and Dynamic Pressure. — H. Salim, P. Muller, and R. Dinan; 19(4), 267-76 (2005).

Muthumani, K.
Evaluation of Seismic Performance of Gravity Load Designed Reinforced Concrete Frames. — Helen M. Santhi, G. M. Samuel Knight, and K. Muthumani; 19(4), 277-82 (2005).

Nachiappan, Vijayakumar
Corrosion of High Chromium and Conventional Steels Embedded in Concrete. — Vijayakumar Nachiappan and Eung Ha Cho; 19(1), 56-61 (2005).

Nair, Zinnia
Failure of 220 kV Double Circuit Transmission Line Tower Due to Lightning. — Zinnia Nair, K. M. Aparna, R. S. Khandagale, and T. V. Gopalan; 19(2), 132-7 (2005).

Nassar, Adil J.
Demonstration of Use of High-Performance Lightweight Concrete in Bridge Superstructure in Virginia. — Christopher J. Waldron, Thomas E. Cousins, Adil J. Nassar, and Jose P. Gomez; 19(2), 146-54 (2005).

Newtson, Craig M.
Field Evaluation of Marine Structures Containing Calcium Nitrite. — Mereoni M. B. Bola and Craig M. Newtson; 19(1), 28-35 (2005).

Noe, David C.
Closure to "Case History of Damage to a School Building Caused by Differentially Heaving Bedrock" by David C. Noe. — David C. Noe; 19(1), 97-8 (2005).

Nogueira, Carnot L.
Bridge Management and Nondestructive Evaluation. — Kevin L. Rens, Carnot L. Nogueira, and David J. Transue; 19(1), 3-16 (2005).

Noorany, Iraj
Levelness of Newly Constructed Posttensioned Slabs for Residential Structures. — Iraj Noorany, E. David Colbaugh, Ronald J. Lejman, and Michael J. Miller; 19(1), 49-55 (2005).

Oberle, Rita
Durable Repairs on Marine Bridge Piles. — Patricia Thaesler, Lawrence Kahn, Rita Oberle, and Cornelia E. Demers; 19(1), 88-92 (2005).

Paris, Deidre E.
Multifamily Affordable Housing: Residential Satisfaction. — Deidre E. Paris and Roozbeh Kangari; 19(2), 138-45 (2005).

Pearson, Cynthia
Ronan Point Apartment Tower Collapse and its Effect on Building Codes. — Cynthia Pearson and Norbert Delatte; 19(2), 172-7 (2005).

Phan, Long T.
September 11, 2001, Airliner Crash into the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 189-96 (2005).
Description of Structural Damage Caused by the Terrorist Attack on the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 197-205 (2005).
Toughness of the Pentagon Structure. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 206-11 (2005).
Response to Fire Exposure of the Pentagon Structural Elements. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 212-9 (2005).
Conclusions and Recommendations from the Pentagon Crash. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 220-1 (2005).

Popovics, John S.
Longitudinal Cracking Distress on Continuously Reinforced Concrete Pavements in Illinois. — Jeffery R. Roesler, John S. Popovics, Joni L. Ranchero, Matt Mueller, and David Lippert; 19(4), 331-8 (2005).

Praça, Paulo
Technical Performance Assessment of Urban Sewer Systems. — Maria Adriana Cardoso, Sérgio T. Coelho, Paulo Praça, Rita S. Brito, and José Matos; 19(4), 339-46 (2005).

Ranchero, Joni L.
Longitudinal Cracking Distress on Continuously Reinforced Concrete Pavements in Illinois. — Jeffery R. Roesler, John S. Popovics, Joni L. Ranchero, Matt Mueller, and David Lippert; 19(4), 331-8 (2005).

Rens, Kevin L.
Bridge Management and Nondestructive Evaluation. — Kevin L. Rens, Carnot L. Nogueira, and David J. Transue; 19(1), 3-16 (2005).

Restrepo, Edgar
Determination of Bridge Design Parameters through Field Evaluation of the Route 601 Bridge Utilizing Fiber-Reinforced Polymer Girders. — Edgar Restrepo, Tommy Cousins, and Jack Lesko; 19(1), 17-27 (2005).

Richards, A. B.
Effects of Mine Blasting on Residential Structures. — E. F. Gad, J. L. Wilson, A. J. Moore, and A. B. Richards; 19(3), 222-8 (2005).

Roesler, Jeffery R.
Longitudinal Cracking Distress on Continuously Reinforced Concrete Pavements in Illinois. — Jeffery R. Roesler, John S. Popovics, Joni L. Ranchero, Matt Mueller, and David Lippert; 19(4), 331-8 (2005).

Salim, H.
Response of Conventional Steel Stud Wall Systems under Static and Dynamic Pressure. — H. Salim, P. Muller, and R. Dinan; 19(4), 267-76 (2005).

Samuel Knight, G. M.
Evaluation of Seismic Performance of Gravity Load Designed Reinforced Concrete Frames. — Helen M. Santhi, G. M. Samuel Knight, and K. Muthumani; 19(4), 277-82 (2005).

Sandford, Thomas C.
Repair of Wood Piles Using Prefabricated Fiber-Reinforced Polymer Composite Shells. — Roberto Lopez-Anido, Antonis P. Michael, Thomas C. Sandford, and Barry Goodell; 19(1), 78-87 (2005).

Santhi, Helen M.
Evaluation of Seismic Performance of Gravity Load Designed Reinforced Concrete Frames. — Helen M. Santhi, G. M. Samuel Knight, and K. Muthumani; 19(4), 277-82 (2005).

Scullion, Tom
Detailed Forensic Investigation and Rehabilitation Recommendation on Interstate Highway-30. — Dar-Hao Chen, Tom Scullion, John Bilyeu, and Moon Won; 19(2), 155-64 (2005).
Forensic Investigation of a Sulfate-Heaved Project in Texas. — Dar-Hao Chen, Pat Harris, Tom Scullion, and John Bilyeu; 19(4), 324-30 (2005).

Sen, R.
Multiparameter Assessment Guide for Emergency Shelters: Disaster Relief Applications. — N. M. Bradford and R. Sen; 19(2), 108-16 (2005).

Shen, Shui-Long
Evaluation of a Dike Damaged by Pile Driving in Soft Clay. — Shui-Long Shen, Jie Han, He-Hua Zhu, and Zhen-Shun Hong; 19(4), 300-7 (2005).

Sorenson, Marc L.
Load Testing of Historic Cast Iron Stairs at Cape Hatteras Lighthouse. — Ufuk Dilek, Marc L. Sorenson, and Donald B. Chandler; 19(1), 36-41 (2005).

Sozen, Mete A.
September 11, 2001, Airliner Crash into the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 189-96 (2005).
Description of Structural Damage Caused by the Terrorist Attack on the Pentagon. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 197-205 (2005).
Toughness of the Pentagon Structure. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 206-11 (2005).
Response to Fire Exposure of the Pentagon Structural Elements. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 212-9 (2005).
Conclusions and Recommendations from the Pentagon Crash. — Paul F. Mlakar, Donald O. Dusenberry, James R. Harris, Gerald Haynes, Long T. Phan, and Mete A. Sozen; 19(3), 220-1 (2005).

Springfield, John
Discussion of "Study of Recent Building Failures in the United States" by Kumalasari Wardhana and Fabian C. Hadipriono. — John Springfield; 19(2), 182 (2005).

Stark, Timothy D.
Effect of Toe Excavation on a Deep Bedrock Landslide. — Timothy D. Stark, W. David Arellano, Ryan P. Hillman, Roger M. Hughes, Norman Joyal, and Don Hillebrandt; 19(3), 244-55 (2005).

Thaesler, Patricia
Durable Repairs on Marine Bridge Piles. — Patricia Thaesler, Lawrence Kahn, Rita Oberle, and Cornelia E. Demers; 19(1), 88-92 (2005).

Transue, David J.
Bridge Management and Nondestructive Evaluation. — Kevin L. Rens, Carnot L. Nogueira, and David J. Transue; 19(1), 3-16 (2005).

Uddin, Nasim
Lessons Learned: Failure of a Hydroelectric Power Project Dam. — Nasim Uddin; 19(1), 69-77 (2005).

Waldron, Christopher J.
Demonstration of Use of High-Performance Lightweight Concrete in Bridge Superstructure in Virginia. — Christopher J. Waldron, Thomas E. Cousins, Adil J. Nassar, and Jose P. Gomez; 19(2), 146-54 (2005).

Wang, Her-Yuan
Forensic Investigation of Ultra-Thin Whitetopping Failures in Taiwan. — Deng-Fong Lin and Her-Yuan Wang; 19(2), 165-71 (2005).

Wang, Zhao
Effect of Dynamic Compaction on Placement of High-Road Embankment. — Wei-Lie Zou, Zhao Wang, and Zheng-Fa Yao; 19(4), 316-23 (2005).

Wilson, J. L.
Effects of Mine Blasting on Residential Structures. — E. F. Gad, J. L. Wilson, A. J. Moore, and A. B. Richards; 19(3), 222-8 (2005).

Won, Moon
Detailed Forensic Investigation and Rehabilitation Recommendation on Interstate Highway-30. — Dar-Hao Chen, Tom Scullion, John Bilyeu, and Moon Won; 19(2), 155-64 (2005).

Yao, Zheng-Fa
Effect of Dynamic Compaction on Placement of High-Road Embankment. — Wei-Lie Zou, Zhao Wang, and Zheng-Fa Yao; 19(4), 316-23 (2005).

Zallen, Rubin M.
Closure to "Effective Length of Lift-Slab Columns" by Rubin M. Zallen and Bernard Grossfield. — Rubin M. Zallen and Bernard Grossfield; 19(1), 94 (2005).

Zhu, He-Hua
Evaluation of a Dike Damaged by Pile Driving in Soft Clay. — Shui-Long Shen, Jie Han, He-Hua Zhu, and Zhen-Shun Hong; 19(4), 300-7 (2005).

Zou, Wei-Lie
Effect of Dynamic Compaction on Placement of High-Road Embankment. — Wei-Lie Zou, Zhao Wang, and Zheng-Fa Yao; 19(4), 316-23 (2005).